

of time to permit the establishment of the true vitamin value of any foodstuff. Pending the isolation of each vitamin and an accurate method of assay, we must develop the biological test to as high an accuracy as possible. It would extend this paper too greatly to review the story of measurement of vitamins D and E. Owing to the sharpness of the pathological picture, D measurements are fairly satisfactory, but little data has yet been obtained. Hess has reported a general absence of D in green vegetables tested, such as lettuce, spinach, etc. We have confirmed this finding in the case of peas. We have not yet tested bananas for this factor. The very existence of vitamin E

is still a matter of debate and hence the tests for this factor are as yet unsatisfactory.

When we consider that the existence of vitamins was unknown less than 16 years ago, the outlook for proper assay of these factors is encouraging in spite of the limitations we have noted.

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## VALUE OF THE PHYSICAL EXAMINATION OF FOOD HANDLERS\*

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IT IS THE PURPOSE of this paper to briefly consider the relative value of the physical examination of food handlers, as compared with the sanitary inspection of inanimate objects in the food establishment. This is based upon four years' experience with an ordinance which has as its purpose the prevention of the spread of communicable diseases in food establishments by requiring the physical examination of food handlers. The statements made are based on an opinion, and not on actual figures, as figures are not available to show how many cases of communicable disease have been contracted in food establishments.

Some of the values of the physical examination which have come to the writer's attention are as follows:

*First*—The examination eliminates persons who are in the active stage of tuberculosis, and who are constantly giving off tubercle bacilli. Such individuals are not uncommon around food establishments where no examination is required. Is there any condition around a food establishment which is more apt to aid in the transmission of tuberculosis than a person who is harboring the organisms at the proper temperature, and giving them off in a live, virulent form, with enough moisture to insure their delivery in good condition to new fields?

*Second*—Some extremists insist that practically all syphilis is contracted by sexual contact, but the clinician sees any number of cases from which he cannot get a history of the primary lesion, the patient deliberately concealing the facts or else being unaware of them. I believe that the burden of proof rests on

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us that such is the case. When one stops to consider some of these situations, he is inclined to be more charitable in considering the possibility of innocent persons contracting syphilis.

There comes to mind very distinctly the probable spread of infection by a waitress whom we examined. She had a syphilitic ulcer on her left forearm and it was her habit to carry a towel or cloth on that arm. Just before serving a patron she would very carefully wipe off all the dishes as she set them in place. One would readily agree that the proper washing and sterilizing of dishes each time after use is an important sanitary requirement, but has not all the good sanitary work been done for naught if we allow persons who are infected to handle the dishes or food just before serving?

*Third*—I have never seen any condition where I felt that gonorrhea was directly transmitted through dishes or foods. Nevertheless, a person with an active case of gonorrhea is more of a menace around a food establishment than is an insanitary condition of the inanimate objects.

Our community, like practically all others, has no recognized vice district. Our examination has revealed that a large number of girls work as waitresses as a side line so that they may meet men. The examination of these girls has shown a large percentage of them to be infected. The spread of disease from food establishments (although not through food *per se*) can be more surely prevented by locating these cases which are potential foci of infection and controlling them, than from all other sanitary measures.

*Fourth*—We have made little headway in preventing the spread of the respiratory diseases, other than tuberculosis. Though the examination of the inanimate objects about a food establishment is very necessary, it is realized that the personnel is of far greater importance in the spread of disease. Too often the appearance of the place has been thought

to be of primary importance and the absence of visible dirt all that is required. If more attention is paid to the personnel generally, acute diseases will be more readily recognized. The physical examination tends to cut down the number of persons in these establishments suffering from acute respiratory diseases.

*Fifth*—Intestinal diseases, more especially the acute food infections, are frequently spread via food establishments. In this particular group of diseases, the sanitary condition of the food establishment probably plays a more important rôle than does the physical examination of the personnel; yet constant vigilance must be maintained to detect typhoid fever carriers.

I am heartily in favor of the appraisal form used to measure health activities in the various cities, and fully realize that there is and always will be differences of opinion as to the relative values to be given for different phases of health work. However, the committee has made a mistake when it allows 20 points for general sanitary inspection service and only 5 points for physical examination of food handlers. I believe that a deduction should be made from the score when food establishments are not sanitary, for the public now demands sanitary food establishments, and a community does not deserve an additional score for that. If the proper sanitary conditions do not exist, a deduction should be made, but additional credit should be given for physical examination of food handlers.

It is a relic of the dark ages that has crept into our scoring system similar to the health significance the average layman attributes to the collection of garbage in allowing much more of a score for sanitation than for real disease prevention. Also, additional credit should be given a community which requires physical examinations, because it helps to bring to the public's attention that forward movement which we all should support, namely, a health examination of all persons at least once a year.